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COTTON CLASSING AND MARKET NEWS SERVICE FOR FARMERS

LETTER

FROM THE

CHIEF OF THE BUREAU OF AGRICULTURAL ECONOMICS
DEPARTMENT OF AGRICULTURE

TRANSMITTING TO THE

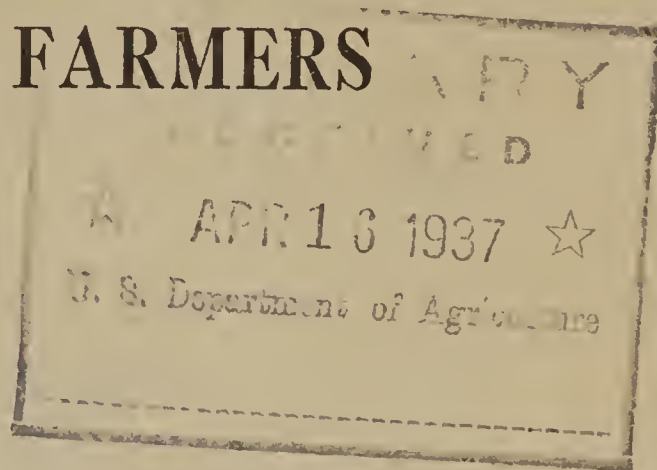
CHAIRMAN OF THE COMMITTEE ON APPROPRIATIONS
OF THE

HOUSE OF REPRESENTATIVES

A REPORT ON THE COTTON-CLASSING FACILITIES NOW
AVAILABLE TO THE PUBLIC, TOGETHER WITH CERTAIN
SUGGESTIONS AS TO THE MEANS BY WHICH A SERVICE
MIGHT BE MADE GENERALLY AVAILABLE TO PRODUCERS
AND OTHERS FOR CLASSIFICATION OF COTTON ACCORD-
ING TO THE OFFICIAL COTTON STANDARDS
OF THE UNITED STATES



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1934



HOUSE RESOLUTION NO. 445

(Submitted by Mr. BUCHANAN)

IN THE HOUSE OF REPRESENTATIVES,
June 15, 1934.

Resolved, That the letter from the Chief of the Bureau of Agricultural Economics of the Department of Agriculture, dated June 4, 1934, addressed to Congressman James P. Buchanan, Chairman of the Committee on Appropriations of the House of Representatives, transmitting a report on the cotton-classing facilities now available to the public under the United States Cotton Standards Act (U.S.C., title 7, secs. 51-65), and other statutory authority, together with certain suggestions as to the means by which a service might be made generally available to producers and others for classification of cotton according to the official cotton standards of the United States, be printed with illustrations as a document; and that five thousand additional copies be printed for the use of the House document room.

Attest:

SOUTH TRIMBLE, *Clerk.*

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF AGRICULTURAL ECONOMICS,
Washington, D.C., June 4, 1934.

Hon. JAMES P. BUCHANAN,
*Chairman Committee on Appropriations,
House of Representatives.*

DEAR MR. BUCHANAN: In response to your recent request I am sending you a brief report showing the development by the Bureau of Agricultural Economics of standards for the grade and staple of cotton, and the classification services conducted by the Bureau. This report also contains, as you requested, a discussion of the practicability of furnishing all growers with official information as to the classification and value of their cotton at time of ginning.

As pointed out in this statement, quality is an essential consideration in selecting cotton for the hundreds of purposes for which it is now used. The variations in quality which occur in the crop as a whole, and also frequently in the production of individual growers, require uniform methods of quality measurement or description which can be understood and uniformly applied through the channels of distribution from producer to manufacturer. Because of the nature of the product itself, growers generally are not adequately informed as to the quality and value of the cotton they have for sale and consequently are not able to bargain with buyers to their best advantage. The nature of cotton quality is in itself obscure and difficult of determination. Even an elementary determination requires such a degree of expertness and experience that growers generally are not able to serve themselves in classing their cotton or in determining its value before sale.

The cotton standardization work of this Bureau has developed standards, however, which are recognized for American cotton throughout the world and it is estimated that manufacturers in this country purchase 75 percent or more of their raw cotton on the basis of the official standards for grade and about 50 percent on standards for staple length. These standards are used to class all cotton tendered in settlement of futures contracts in this country as required by the United States Cotton Futures Act. They afford the basis upon which the Bureau annually estimates the grade and staple of the carry-over and issues estimates of the grade and staple of the crop during the ginning season. These standards are the basis for classing cotton stored in federally licensed warehouses when classification is desired, and for the classification of about 3,500,000 bales last year by classers licensed and supervised by this Department under the United States Cotton Standards Act.

It must be recognized, of course, that the development of standards for any product is an evolutionary process. This is especially true of

cotton. Many of the elements which constitute the cotton fiber are so elusive that methods of testing and measuring it that are suitable to commercial usage are exceedingly difficult to establish. Much technological research therefore remains to be done and is being carried on in this field.

As pointed out in the statement, price quotations commonly published are the prices of cotton of middling grade, $\frac{7}{8}$ -inch staple. Other grades and staples are bought and sold at premiums over or discounts from the prices of the basis grade and staple length. The average quality of the crop is shown to be somewhat better than middling $\frac{7}{8}$, and it is estimated that the total net premium on the crop as a whole over the market value of middling $\frac{7}{8}$ calculated from current market quotations ranged from about \$6,000,000 to over \$25,000,000 in the 4 years 1928 to 1932. On the average, prices received by growers, however, appear not to be materially out of line with central market values, due allowance being made for transportation costs. It is rather in the prices paid for grades and staples above and below the basis quality that the inequities of the local markets are most apparent. Even when the average prices in farmers' markets are in line with the central market basis, the prices paid for individual bales often fail to correspond to the actual quality of the bales, but are calculated on the average quality of current receipts in the market in which they are sold, as understood by the buying firms in the central markets by whom price limits are issued. In the local markets where the Bureau has recently studied price movements, average premiums received by growers for $\frac{7}{8}$ white cotton of grades above middling amounted to only about 35 percent of those quoted in central markets while the discounts to growers for grades below middling amounted to 62 percent of those quoted in central markets. More adequate information in the hands of producers as to the grade and staple of their individual bales and information as to market prices and conditions prevailing for the quality of cotton they have for sale would put the grower in a better bargaining position and tend to reduce these inequalities.

The experience the Bureau has gained in estimating the grade and staple of the crop during the ginning season indicates that a classing service could be organized which would place in the hands of farmers, within 2 or 3 days after ginning, information as to the grade and staple of their individual bales as determined by an official cotton classer. It would be practicable, also, to furnish a market news service which would keep farmers promptly informed as to prices being paid for the different grades and staples. Reports of current market prices and other important market information could be posted at gins and local post offices and widely disseminated by radio throughout the Cotton Belt. The essential elements of such a service to growers are presented in the report.

Sincerely yours,

NILS A. OLSEN, *Chief of Bureau.*

A COTTON CLASSING AND MARKET NEWS SERVICE FOR FARMERS

The dominant position of cotton among the sources of farm income of the South is known almost universally. Since the World War the total income from lint alone has varied from \$424,000,000 in 1932 to over \$2,000,000,000 in 1919. In 1932 the combined income from cotton lint and seed exceeded that from any other crop in 10 States, and in 6 States the cash income from cotton and cottonseed exceeded that from all other agricultural sources. The crop is grown on approximately 2 million of the 6½ million farms of the Nation. These facts combine to make the welfare of cotton growers a matter of national concern. (Table I.)

When it has been ginned and baled and is ready to be offered by the producer for sale, cotton is as readily converted into cash as any of our crops. The position of cotton is unique in that no other product of the farm finds so many and such varied uses. In sheer fabrics it satisfies the wish for garments of style and luxury. In coarser weaves it supplies at minimum cost the essential clothing of a greater part of the world's population. In homes and in hospitals it is a first essential. In automobile tires, belting for power transmission, fire hose, and in kindred forms its strength and durability make it desired over all other materials. A complete catalog of its uses has never been compiled; a partial list contains close to a thousand individual items.

TABLE I.—*Production, farm price, and farm value of cotton produced in the United States, 1919 to 1933*

[Bureau of Agricultural Economics, Division of Crop and Livestock Estimates]

Year	Production		Farm price	Farm value
	Bales	Pounds		
	1,000 bales	1,000 pounds	Cents	1,000 dollars
1919-----	11,411	5,705,493	35.4	2,020,398
1920-----	13,429	6,714,950	15.9	1,069,257
1921-----	7,945	3,972,765	17.0	675,773
1922-----	9,755	4,877,458	22.9	1,115,578
1923-----	10,140	5,069,834	28.7	1,454,320
1924-----	13,630	6,813,796	22.9	1,561,022
1925-----	16,105	8,051,840	19.6	1,577,091
1926-----	17,978	8,988,688	12.5	1,121,210
1927-----	12,956	6,478,020	20.2	1,308,090
1928-----	14,477	7,238,939	18.0	1,302,040
1929-----	14,825	7,412,433	16.8	1,244,847
1930-----	13,932	6,965,800	9.5	659,047
1931-----	17,095	8,547,797	5.7	483,666
1932-----	13,002	6,500,752	6.5	424,032
1933 ¹ -----	13,177	6,588,500	9.2	604,376

¹ Preliminary.

In every department of use, quality is an essential consideration. The selection of cotton of the necessary or desired qualities for the particular product into which it is to be manufactured is an inherent part of the process of assembling the crop from growers' hands and redistributing it to the mills. This selection of quality is necessitated also by the extent of variation of quality that ordinarily occurs in the crop as a whole and frequently in the crop of a single grower. These variations are expressed in terms of grade, by which is meant the color, and the relative cleanliness and smoothness of ginning preparation of cotton; and in terms of staple, by which is meant the length of fibers; and in terms of character, by which is meant the fineness, strength, maturity, and other similar attributes. The extent of the variations of grade and staple and the proportions in which the various grades and staples may occur in the crop, are indicated in table II.

TABLE II.—Grade and staple length distribution of American upland cotton in the United States, crop of 1933

]Estimated from data obtained from the classification of samples representing American upland and American-Egyptian cotton, classed according to official cotton standards of the United States]

SUMMARY

	1933		1932	
	Bales	Percent	Bales	Percent
Total crop as reported—				
By the Bureau of the Census.....	12, 660, 000	100. 0	12, 703, 300	100. 0
Total American upland.....	12, 650, 300	99. 9	12, 695, 000	99. 9
Total American-Egyptian.....	9, 700	. 1	8, 300	. 1
Grades (American upland):				
Extra White:				
Good Middling and above.....	273, 100	2. 2	110, 300	. 9
Strict Middling.....	597, 500	4. 7	134, 300	1. 0
Middling.....	422, 700	3. 3	86, 600	. 7
Strict Low Middling.....	187, 200	1. 5	98, 100	. 8
Low Middling and below.....	42, 000	. 3	30, 700	. 2
White:				
Good Middling and above.....	275, 800	2. 2	260, 600	2. 0
Strict Middling.....	2, 487, 300	19. 7	3, 146, 700	24. 8
Middling.....	2, 950, 500	23. 3	4, 468, 300	35. 2
Strict Low Middling.....	1, 135, 200	9. 0	1, 570, 300	12. 4
Low Middling.....	235, 900	1. 9	330, 000	2. 6
Below Low Middling.....	62, 500	. 5	168, 100	1. 3
Spotted:				
Good Middling.....	482, 400	3. 8	194, 200	1. 5
Strict Middling.....	2, 138, 000	16. 9	1, 053, 700	8. 3
Middling.....	1, 030, 500	8. 2	672, 900	5. 3
Strict Low Middling.....	220, 800	1. 7	213, 400	1. 7
Low Middling.....	55, 500	. 4	77, 600	. 6
Yellow Tinged:				
Strict Middling and above.....	11, 700	. 1	13, 500	. 1
Middling and below.....	9, 800	. 1	20, 300	. 2
Light Yellow Stained.....	500	(1)	500	(1)
Yellow Stained.....	200	(1)	100	(1)
Gray:				
Strict Middling and above.....	1, 800	(1)	7, 100	. 1
Middling.....	1, 100	(1)	3, 000	(1)
Blue Stained.....	100	(1)		
No grade.....	28, 200	. 2	34, 700	. 3

¹ Less than 1/10 of 1 percent.

AMERICAN-EGYPTIAN

Grade	Total		Staple-length distribution (inches)			
			Shorter than 1½	1½ and 1⅞	1⅞ and 1⅞½	1⅞ to 1⅞½
	Bales	Percent	Bales	Bales	Bales	Bales
All grades.....	9, 700	100. 0	100	3, 300	5, 300	1, 000
1 and 1½.....	4, 600	47. 4		1, 200	2, 700	700
2 and 2½.....	4, 500	46. 4	100	1, 800	2, 300	300
3 and 3½.....	600	6. 2		300	300	

TABLE II.—*Grade and staple length distribution of American upland cotton in the United States, crop of 1933—Continued*

AMERICAN UPLAND—STAPLE-LENGTH DISTRIBUTION

Staple-length (inches)	Total crop			
	1933		1932	
	<i>Bales</i> 12, 650, 300	<i>Percent</i> 100. 0	<i>Bales</i> 12, 695, 000	<i>Percent</i> 100. 0
All lengths.....				
Shorter than $\frac{7}{8}$	534, 900	4. 2	826, 400	6. 5
$\frac{7}{8}$ and $2\frac{9}{32}$	4, 486, 100	35. 5	4, 781, 400	37. 7
$1\frac{5}{16}$ and $3\frac{1}{32}$	3, 997, 500	31. 6	3, 675, 800	28. 9
1 and $1\frac{1}{32}$	2, 020, 300	16. 0	1, 823, 000	14. 4
$1\frac{1}{16}$ and $1\frac{3}{32}$	820, 000	6. 5	873, 600	6. 9
$1\frac{1}{8}$ and $1\frac{5}{32}$	640, 700	5. 1	623, 600	4. 9
$1\frac{3}{16}$ and $1\frac{7}{32}$	144, 700	1. 1	85, 400	. 7
$1\frac{1}{4}$ and longer.....	6, 100	(1)	5, 800	(1)

¹ Less than one-tenth of 1 percent.

TENDERABILITY ACCORDING TO SECTION 5, U.S. COTTON FUTURES ACT

Tenderability	Total crop			
	1933		1932	
	<i>Bales</i> 12, 650, 300	<i>Percent</i> 100. 0	<i>Bales</i> 12, 695, 000	<i>Percent</i> 100. 0
Total.....				
Tenderable $\frac{7}{8}$ to $1\frac{1}{32}$ inches, inclusive.....	10, 184, 500	80. 5	9, 936, 100	78. 3
Tenderable over $1\frac{1}{32}$ inches.....	1, 601, 300	12. 7	1, 564, 200	12. 3
Total tenderable.....	11, 785, 800	93. 2	11, 500, 300	90. 6
Total untenderable.....	864, 500	6. 8	1, 194, 700	9. 4

In the larger and more discriminating markets, qualities are finely distinguished, especially as to grade and staple, and prices are correspondingly graduated. The price quotations commonly published are the prices of cotton of Middling grade, $\frac{7}{8}$ inch in length of staple. Other grades and staples are bought and sold at premiums over or discounts from the prices of the basis grade and staple length. The relative prices of higher and lower grades and of longer staples as reported from Memphis, Tenn., on April 23, 1934, are shown in table III.

TABLE III.—Current prices for cotton of various grades and staple lengths as reported from Memphis, Tenn., Apr. 23, 1934

Grade	7⁄8 inch	29⁄32 inch	15⁄16 inch	31⁄32 inch	1 inch	11⁄32 inches	11⁄16 inches	13⁄32 inches	11⁄8 inches	15⁄32 inches	13⁄16 inches	17⁄32 inches	11⁄4 inches
White Standards:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
No. 1 or Middling Fair-----	11.60	11.65	11.85	12.00	12.25	12.50	12.85	12.85	13.65	14.70	16.20	17.20	18.70
No. 2 or Strict Good Middling-----	11.50	11.55	11.75	11.90	12.15	12.40	12.75	12.75	13.50	14.40	15.65	16.65	18.15
No. 3 or Good Middling-----	11.45	11.50	11.70	11.85	12.10	12.35	12.70	12.70	13.40	14.15	15.15	16.15	17.65
No. 4 or Strict Middling-----	11.30	11.35	11.55	11.70	11.95	12.20	12.55	12.55	13.50	13.60	14.60	15.60	17.10
No. 5 or Middling-----	10.95	11.00	11.20	11.35	11.60	11.85	12.20	12.20	12.60	12.60	13.60	14.60	15.60
No. 6 or Strict Low Middling-----	10.55	10.60	10.80	10.95	11.20	11.45	11.80	11.80	12.05	12.20	12.45	12.70	13.20
No. 7 or Low Middling-----	10.20	10.20	10.45	10.45	10.85	10.95	11.05	11.05	11.20	11.20	11.45	11.95	12.20
No. 8 or Strict Good Ordinary ¹ -----	9.65	9.65	9.65	9.65	9.65	9.75	9.85	9.85	9.95	9.95	10.10	10.10	10.10
No. 9 or Good Ordinary ¹ -----	9.15	9.15	9.15	9.15	9.15	9.25	9.35	9.35	9.45	9.45	9.65	9.65	9.65
Extra White:													
No. 3 or Good Middling-----	11.45	11.50	11.75	11.85	12.10	12.35	12.70	12.70	13.40	14.15	15.15	16.15	17.65
No. 4 or Strict Middling-----	11.30	11.35	11.70	11.70	11.95	12.20	12.55	12.55	13.10	13.60	14.60	15.60	17.10
No. 5 or Middling-----	10.95	11.00	11.55	11.35	11.60	11.85	12.20	12.20	12.60	12.60	13.60	14.60	15.60
No. 6 or Strict Low Middling-----	10.55	11.60	11.20	10.95	11.20	11.45	11.80	11.80	12.05	12.20	12.45	12.70	13.20
No. 7 or Low Middling-----	10.20	10.20	10.80	10.45	10.85	10.95	11.05	11.05	11.20	11.20	11.45	11.95	12.20
Spotted:													
No. 3 or Good Middling-----	11.30	11.30	11.45	11.45	11.95	12.05	12.15	12.15	12.25	12.25	12.35	12.35	12.35
No. 4 or Strict Middling-----	10.95	10.95	11.10	11.10	11.60	11.70	11.80	11.80	11.90	11.90	12.00	12.00	12.00
No. 5 or Middling-----	10.55	10.55	10.70	10.70	11.20	11.30	11.40	11.40	11.50	11.50	11.60	11.60	11.60
No. 6 or Strict Low Middling ¹ -----	10.20	10.20	10.20	10.20	10.20	10.30	10.40	10.40	10.50	10.50	10.60	10.60	10.60
No. 7 or Low Middling ¹ -----	9.65	9.65	9.65	9.65	9.65	9.75	9.85	9.85	9.95	9.95	10.10	10.10	10.10
Yellow Tinged:													
No. 2 or Strict Good Middling-----	10.85	10.85	11.00	11.00	11.35	11.45	11.55	11.55	11.65	11.65	11.75	11.75	11.75
No. 3 or Good Middling-----	10.75	10.75	10.90	10.90	11.25	11.35	11.45	11.45	11.55	11.55	11.65	11.65	11.65
No. 4 or Strict Middling-----	10.55	10.55	10.70	10.70	11.05	11.15	11.25	11.25	11.35	11.35	11.45	11.45	11.45
No. 5 or Middling ¹ -----	10.20	10.20	10.20	10.20	10.20	10.30	10.40	10.40	10.50	10.50	10.60	10.60	10.60
No. 6 or Strict Low Middling ¹ -----	9.80	9.80	9.80	9.80	9.80	9.90	10.00	10.00	10.10	10.10	10.20	10.20	10.20
No. 7 or Low Middling ¹ -----	9.45	9.45	9.45	9.45	9.45	9.55	9.65	9.65	9.75	9.75	9.85	9.85	9.85
Light Yellow Stained:													
No. 3 or Good Middling-----	10.50	10.50	10.65	10.65	11.00	11.10	11.20	11.20	11.30	11.30	11.40	11.40	11.40
No. 4 or Strict Middling ¹ -----	10.20	10.20	10.20	10.20	10.20	10.30	10.40	10.40	10.50	10.50	10.60	10.60	10.60
No. 5 or Middling ¹ -----	9.75	9.75	9.75	9.75	9.75	9.85	9.95	9.95	10.05	10.05	10.15	10.15	10.15
Yellow Stained:													
No. 3 or Good Middling-----	10.30	10.30	10.45	10.45	10.80	10.90	11.00	11.00	11.10	11.10	11.20	11.20	11.20
No. 4 or Strict Middling ¹ -----	9.85	9.85	9.85	9.85	9.85	9.95	10.05	10.05	10.15	10.15	10.25	10.25	10.25
No. 5 or Middling ¹ -----	9.35	9.35	9.35	9.35	9.35	9.45	9.55	9.55	9.65	9.65	9.75	9.75	9.75
Gray:													
No. 3 or Good Middling-----	10.70	10.70	10.85	10.85	11.20	11.30	11.40	11.40	11.50	11.50	11.60	11.60	11.60
No. 4 or Strict Middling-----	10.50	10.50	10.65	10.65	11.00	11.10	11.20	11.20	11.30	11.30	11.40	11.40	11.40
No. 5 or Middling ¹ -----	10.20	10.20	10.20	10.20	10.20	10.30	10.40	10.40	10.50	10.50	10.60	10.60	10.60
Blue Stained:													
No. 3 or Good Middling ¹ -----	10.20	10.20	10.20	10.20	10.20	10.30	10.40	10.40	10.50	10.50	10.60	10.60	10.60
No. 4 or Strict Middling ¹ -----	9.85	9.85	9.85	9.85	9.85	9.95	10.05	10.05	10.15	10.15	10.25	10.25	10.25
No. 5 or Middling ¹ -----	9.45	9.45	9.45	9.45	9.45	9.55	9.65	9.65	9.75	9.75	9.85	9.85	9.85

¹ These grades are not deliverable on future contracts.

The average quality of the crop is somewhat better than Middling $\frac{3}{8}$. Table IV shows that the estimated total net premium on the crop as a whole over the market value of Middling $\frac{3}{8}$ -inch cotton, calculated from current market quotations, ranged from about \$6,000,000 to over \$25,000,000 in the 4 years 1928 to 1932.

TABLE IV.—*Total dollar values of grade and staple premiums and discounts, by crops, from 1928 to 1933*

Year	Total crop in bales	Average price Mid- dling $\frac{3}{8}$ - inch (10 markets)	Price to producers Dec. 1	Estimated total farm value of crop based on Dec. 1 price
		<i>Cents</i>	<i>Cents</i>	
1928-29.....	14,241,003	18.67	18.00	\$1,281,691,170
1929-30.....	14,515,800	15.79	16.40	1,190,295,600
1930-31.....	13,730,600	9.61	9.50	652,203,500
1931-32.....	16,582,100	5.89	5.70	472,589,850
1932-33.....	12,695,000	7.15	6.50	412,587,500

Year	Number bales on which pre- mium paid for grade	Dollar value of premium paid for grade	Percentage which pre- mium is of total crop value	Number bales "passed" for grade premium or discount	Number bales on which dis- count made for grade	Dollar value of discount for grade	Percent- age which grade dis- count is of total crop value
1928-29.....	7,061,586	\$11,181,760	0.90	3,343,455	3,835,962	\$19,769,248	1.50
1929-30.....	5,178,600	11,684,840	1.00	4,475,700	4,861,500	27,759,785	2.30
1930-31.....	5,780,300	9,983,930	1.50	4,321,100	3,629,200	14,036,410	2.20
1931-32.....	7,198,400	9,357,920	1.90	5,749,800	3,633,900	9,629,835	2.00
1932-33.....	3,846,100	5,049,595	1.33	5,608,600	3,240,300	6,337,345	1.54

Year	Number bales on which premium paid for staple	Dollar value of premium paid for staple	Percentage which premium is of total crop value	Number bales "passed" for staple premium or discount	Number bales on which discount made for staple	Dollar value of discount for staple	Percent- age which staple discount is of total crop value
1928-29.....	6,246,734	\$36,201,983	2.80	5,947,140	2,047,129	\$6,857,882	0.50
1929-30.....	6,061,600	38,206,210	3.20	5,534,000	2,920,200	15,769,080	1.30
1930-31.....	6,575,100	30,618,390	4.70	5,321,400	1,834,100	8,711,975	1.30
1931-32.....	8,986,800	27,859,080	5.90	6,580,800	1,014,500	1,826,100	.40
1932-33.....	7,087,200	13,603,150	3.30	4,781,400	826,400	867,720	.21

Crop	Net discount for grade of crop	Net premium for staple of crop	Net dollar premium of crop over Middling $\frac{3}{8}$ -inch
1928-29.....	\$8,587,488	\$29,344,101	\$20,756,613
1929-30.....	16,074,945	22,437,130	6,362,185
1930-31.....	4,052,480	21,906,415	17,853,935
1931-32.....	271,915	26,032,980	25,761,065
1932-33.....	1,287,750	12,735,430	11,447,680

NOTE.—Average of New Orleans, Houston, and Galveston markets used for calculating discount on $\frac{1}{8}$ -inch staple. Average of Memphis market used for calculating $\frac{1}{8}$ -inch and longer premiums.

QUALITY OF COTTON AND GROWERS' PRICES

In a consideration of the marketing problems of cotton growers, it should be observed that producers are generally handicapped by a lack of knowledge both of the quality and of the value of the commodity they have for sale. The quantity of cotton used on the farm in its raw state is negligible; all cotton, with this exception, is manufac-

tured, usually at some distance from the point at which it is grown. The nature of cotton quality is in itself obscure and involved; a degree of expertness is required for even an elementary determination. Under these circumstances, it may be seen that growers are little able to serve themselves in the classification of their cotton or in determining its value before sale.

Growers who wish information themselves regarding the classification and value of their cotton which is for sale, have in general three ways of obtaining it:

(1) They may market through a cooperative association or through a factor which will grade and staple their cotton as a part of its regular selling service.

(2) They may avail themselves of classification services afforded by the Government, or by classers licensed by the Government.

(3) In the case of direct sales to local buyers, they may depend for their information upon the buyer to whom they sell.

The proportion of the crop that has been marketed through cooperatives during the past 10 years has varied annually from about 6.4 to 17.4 percent of the crop. Evidence at hand indicates that, particularly where the cooperatives have employed licensed classers, growers' cotton has generally been classed with commendable accuracy and growers have received premiums on grades and staples above Middling $\frac{3}{8}$ corresponding fairly well to the premiums quoted in central markets under supervision of the Bureau. That part of the crop marketed through factors during recent years has diminished to a relatively unimportant figure. Over the 10-year period, it is calculated that approximately 90 percent of the production has been sold by growers directly to ginners, to local buyers, to the local representatives of larger cotton mercantile firms, or at mill doors. When public facilities for classification were within convenient reach, growers have generally used them, but in a very large number of the sales made directly by growers to buyers, growers have been and are dependent upon the opposite parties in their transactions for information concerning quality and are dependent upon competition of buyers for the fairness of their prices.

Studies made throughout the cotton belt of 142 local markets in 1928-29, 123 in 1929-30, and 136 in 1930-31, have developed important information concerning the prices paid to cotton growers.

Average prices.—On the average, prices received by growers appear not to be materially out of line with central-market values, due allowance being made for differences in transportation costs. Prices to growers appear to be relatively high during the early part of the season when the crop is moving freely in large volume and when competition in local markets is keenest. As the season advances, however, and local-market receipts fall off, competition is lessened, and the variations between local prices and central-market prices generally increase. While evidence is lacking to support a popular belief that growers as a rule are grossly undercompensated for cotton of average quality, the record of prices paid growers in the late season suggests that competition of buyers cannot at all times be relied upon to secure to individual growers prices commensurate with the central-market value of their cotton.

Premiums and discounts.—It is rather in the prices paid for grades and staples above and below the basis quality that the inequities

of the local markets are most apparent. Even when the average prices in farmers' markets are in line with the central-market basis, the prices of individual bales often fail to correspond to the quality of the bales, but are calculated on the quality of the "average receipts" of the market in which they are sold, as understood by the buying firms in the central markets by whom price limits are issued.

In the local markets studied in the 3 years cited, average premiums received by growers in those markets for $\frac{7}{8}$ -inch white cotton of grades above Middling, amounted to only about 35 percent of those quoted in central markets; while the discounts to growers for grades below Middling amounted to 62 percent of those quoted in central markets. Prices received by growers in these local markets for Middling white

AVERAGE PREMIUMS AND DISCOUNTS IN PRICES PER POUND PAID FOR GRADES OF $\frac{7}{8}$ -INCH WHITE COTTON IN SELECTED LOCAL MARKETS IN THE UNITED STATES, AND IN CENTRAL MARKETS, SEASONS 1928-29, 1929-30, AND 1930-31

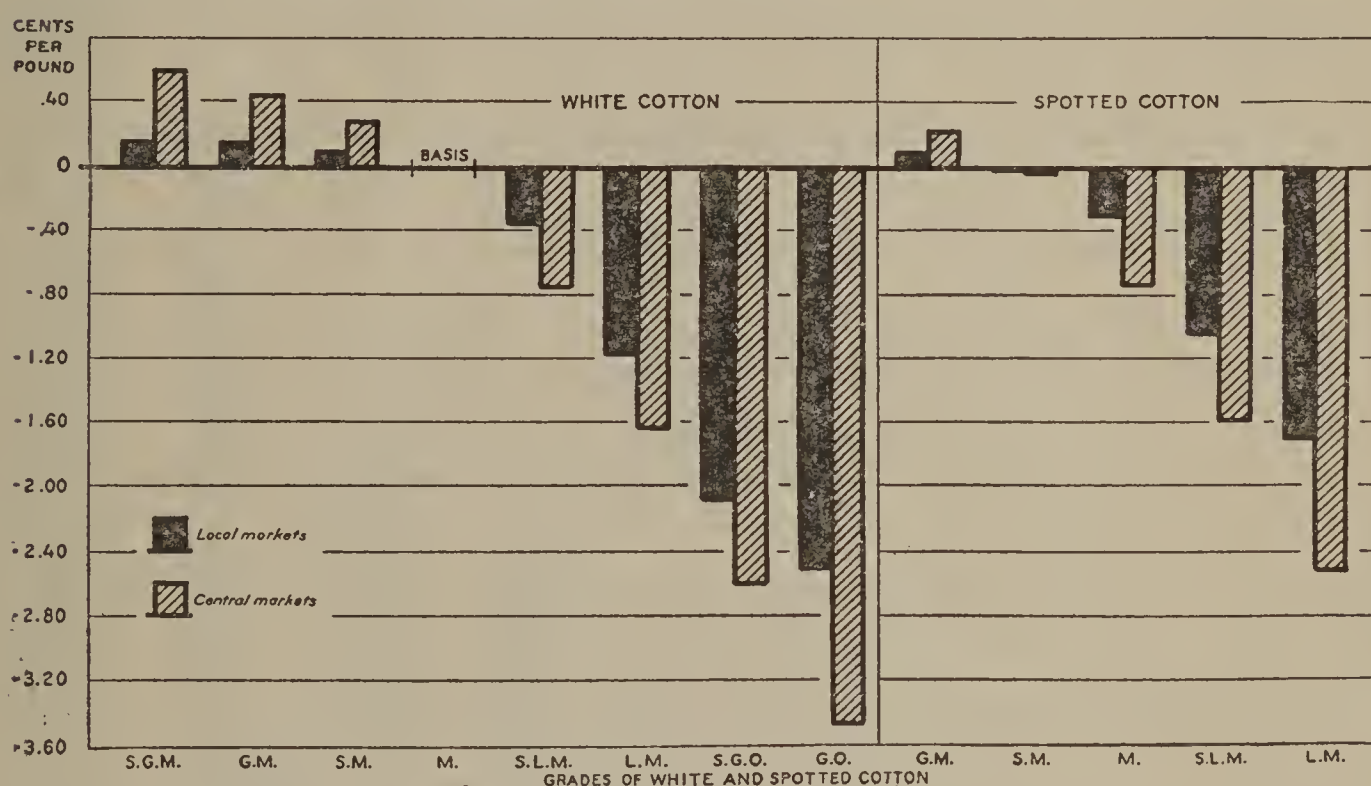


CHART I

FIGURE 4.—Bars above the zero line show premiums and bars below zero line show discounts. Premiums received by growers for grades above middling averaged less than one-third of those paid in central markets. Discounts made to growers for grades below middling averaged somewhat more than half of those paid in central markets.

cotton with staple shorter than $\frac{7}{8}$ averaged 0.06 cent per pound below the average price received for $\frac{7}{8}$ -inch cotton of the same grade; while in central markets such cotton was discounted on the average 0.88 cent per pound. Premiums received by growers for staples longer than $\frac{7}{8}$ amounted in the farmers' markets studied to only about 15 percent of those quoted in central markets. Charts I and II indicate graphically these disparities between the premiums and discounts paid growers and those prevailing in the central markets and bring out vividly the fact that the higher the quality the less has been the proportion of the central-market premium realized by the grower.

Influence of inequities of local market prices upon the quality level of American cotton production.—By failing to remunerate producers of superior qualities of cotton with the premiums prevailing in the larger central markets, and by overpaying for the lower qualities, there is not only a distinct failure to compensate growers equitably but there

AVERAGE PREMIUMS AND DISCOUNTS IN PRICES PER POUND PAID FOR STAPLE LENGTHS OF MIDDLING WHITE COTTON IN SELECTED LOCAL MARKETS IN THE UNITED STATES, AND IN CENTRAL MARKETS, SEASONS 1928-29, 1929-30, AND 1930-31.

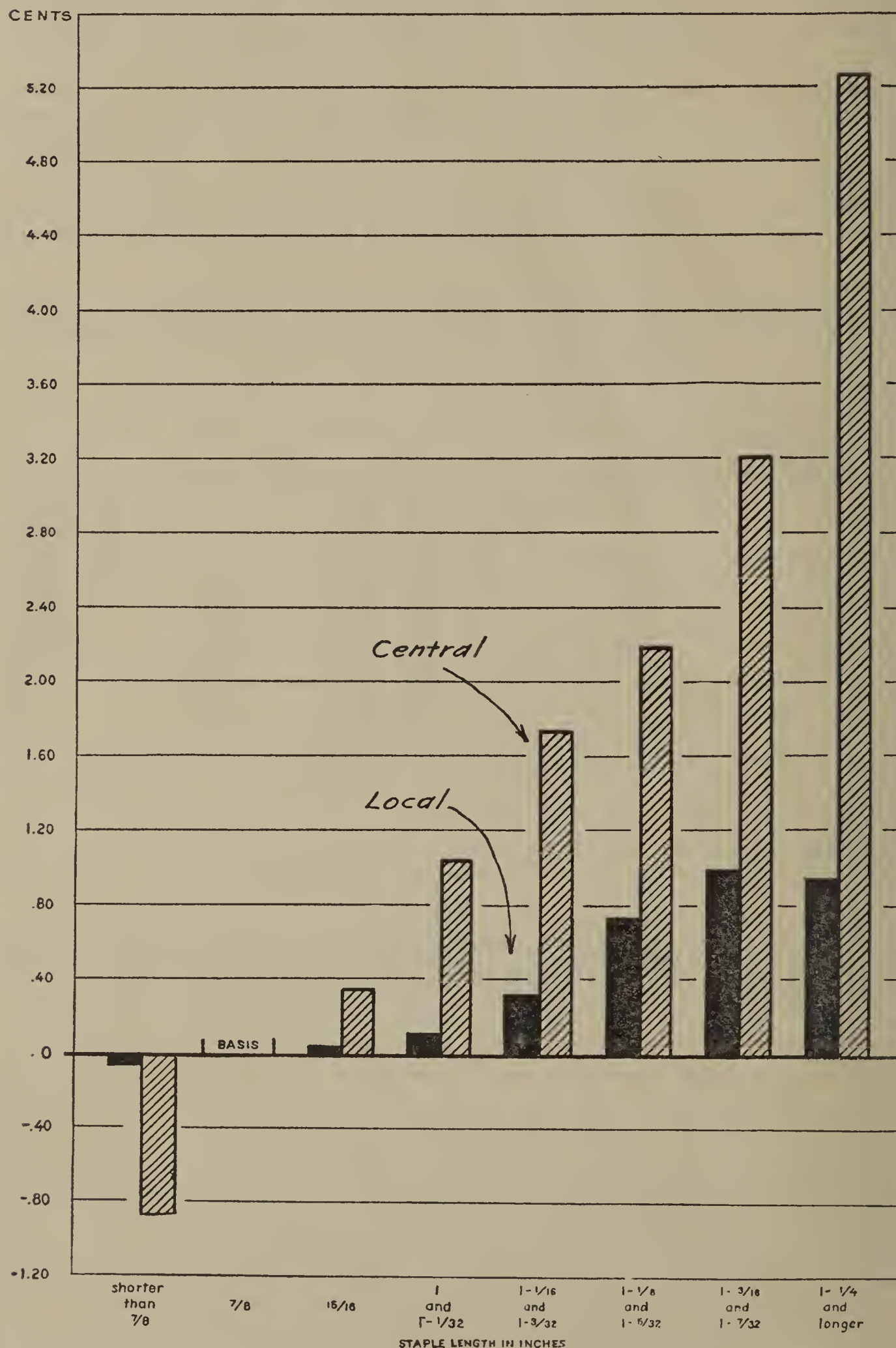


CHART II

FIGURE 6.—The bars above zero line show premiums and bars below the zero line show discounts. Discounts made to growers for cotton with staple length under 7/8 averaged 7 percent of those paid in central markets. Premiums received by growers for staple lengths longer than 7/8-inch averaged 16 percent of those paid in central markets. The number of bales with staples 1 1/4 inches and longer in local markets was too small for the average to be significant.

is a definite tendency to stimulate the production of the lower qualities. The belief commonly held a few years ago that the staple quality of American cotton had definitely and irretrievably declined was until recently a cause of widespread anxiety among thoughtful observers of trends in the American cotton situation.

STANDARDIZATION OF QUALITY DESCRIPTION FOR MARKETING PURPOSES

Students of marketing in earlier years commented upon the practice in those markets where cotton was more carefully graded, of buying cotton "safely"; that is to say, the grades were applied more severely in buying and more leniently in selling given lots of cotton. Because of these practices, it was recognized more than 25 years ago that the first step in improving conditions in farmers' local markets should be the establishment of standards of classification to be applied uniformly in all markets, the same for the growers as for merchants and manufacturers. The standardization of grades likewise commended itself to the more thoughtful members of the cotton trade and of the manufacturing sections of the industry. Early efforts of the Department of Agriculture, therefore, were directed toward the establishment of uniform standards of classification and their introduction into general use.

Early efforts at standardization.—Prior to 1909 there were no standards of classification in the sense in which the term is now employed. Various concepts of classification were in use which were commonly referred to by the names of the exchanges by which they were established, such as Liverpool grades, New York grades, Augusta grades, etc. Identical names were applied in different markets to lots of cotton of different quality, value, and price. The act making appropriations for the Department of Agriculture for the fiscal year 1909 contained an item authorizing investigations in cotton standardization and establishing official standards for the nine grades of white cotton. Subsequent appropriation acts provided for the continuation and extension of the work and the distribution by sale of practical forms of the standards. No authority, however, was vested in the Secretary of Agriculture to apply the standards or to determine disputes in connection with their application. These standards were, therefore, entirely permissive and they were never formally promulgated. The permissive standards of 1909 were before the public for a period of 3 years and a majority of the organized spot markets of the country nominally adopted them, but it was found that the grades in these standards were somewhat higher than the corresponding grades in use at that time, and consequently they were made the basis of only a comparatively small part of the business in either the domestic or export trade.

At a meeting of representatives of the American and European cotton exchanges at Liverpool June 2 and 3, 1913, a recommendation was agreed to for new international standards differing widely from the permissive standards. The action taken at Liverpool was followed by adoption of a resolution in May 1914, by a convention at Augusta, Ga., at which nearly all of the exchanges of this country were represented, asking the Department of Agriculture to adopt the proposed international standards. To this request the Department could not accede.

Smith-Lever Act.—The enactment of the United States Cotton Futures Act (Smith-Lever), followed on August 18, 1914, carrying authority to the Department of Agriculture to establish standards of grade and other quality, to be known as the "official cotton standards of the United States." In order that there might be no question as to just what changes were made or as to just what modifications were intended, the Secretary of Agriculture decided to replace entirely the permissive standards of 1909 so that it might be known definitely that no official grade issued prior to the date of the promulgation of new standards under the Cotton Futures Act retained any official character.

In preparing standards for promulgation under the Cotton Futures Act of 1914 the Department secured the temporary services of some of the best-known classers in the United States to assist its technical force in perfecting standards which would meet the valid objections to the old permissive standards. The result of the combined labor of this force was a set of standards believed to represent the white cotton of an average American crop more closely than any standard previously prepared. Formal promulgation of the first official standards was made on December 15, 1914, and embraced the grades Middling Fair, Strict Good Middling, Good Middling, Strict Middling, Middling, Strict Low Middling, Low Middling, Strict Good Ordinary, and Good Ordinary. These standards were voluntarily adopted in the leading spot markets of the United States, but by the terms of the United States Cotton Futures (Smith-Lever) Act their use was required only on the cotton-futures exchanges.

Efforts to secure international agreement on standards.—For a number of years it had been apparent that so long as importers into foreign countries were coming into American markets for half or more of the crop and seeking to buy according to the grades or grade interpretations in use in the foreign markets, most of which differed in some respect from each other, no voluntary effort could prevail to bring about uniform classification of cotton in the United States without some agreement which would insure uniform standards of classification in the international trade in American cotton. With the hope, therefore, of bringing about the use of universal standards for grade, two representatives of the Department of Agriculture who had assisted in the preparation of the first official cotton standards of the United States were assigned late in 1914 to go to Liverpool, Bremer, and Havre for the purpose of explaining the standards and urging their adoption by the Liverpool Cotton Association, the Bremer Baumwollbörse, and the Syndicat du Commerce des Cotons au Havre. The three European markets were visited and extended discussions occurred with representatives of the trade organization at each place. While the board of managers of the Liverpool Cotton Association favored the adoption of the American standards and while they were well received in Bremen and Havre, it was impossible at that time to bring about general agreement for the use of the American standards as universal standards, owing mainly to the impossibility of satisfactory adjustments with the Liverpool Association.

On January 28, 1916, the Secretary of Agriculture promulgated the first official standards for the grade of colored cottons. Of these there were five grades of yellow tinged, three of yellow stained, and three of blue stained. These standards, which superseded certain

tentative guides for color that had been distributed in February 1915, were developed by the cotton specialists in the then Office of Markets and Rural Organization of the Department (now the Bureau of Agricultural Economics) after consultation with many leading men in the American cotton industry.

Following reenactment of the Cotton Futures Act in 1916, the standards for white and colored cottons already established under the original statute were repromulgated without change on August 12, 1916.

Official standards for length of staple were established under authority of the Cotton Futures Act on August 25, 1918. Standards for grade were established at the same time for Sea Island and for American-Egyptian cotton. The Sea Island standards were discontinued in 1925, when it became obvious that the decline of production of Sea Island cotton had gone so far as to leave no further need for them. The other standards, slightly modified from time to time in accordance with the law, have been continued.

Negotiations for international standards agreement renewed.—With the conclusion of the World War and the return to peace-time activities in the world's cotton markets, negotiations looking to an international agreement for uniform standards of classification, which had been discontinued after 1915, were resumed. In October 1919 a representative of the Bureau of Markets presented the subject to the World Cotton Conference held in New Orleans. The conference put itself on record as favoring the adoption and use of a uniform system of classification for American cotton. Encouraged by this development, the Bureau sent representatives to the next World Cotton Congress which met in Liverpool in 1921. At that time a resolution was adopted favoring the principle of uniform standards, and a representative committee of the conference was appointed to compare the official cotton standards of the United States with those of the Liverpool Cotton Association. Certain objections were found by the American group in the Liverpool standards; but as delegates speaking for the Liverpool Cotton Association declared that the Liverpool standards would not be changed, no agreement resulted.

Shortly thereafter weaknesses which were apparent in the official cotton standards of the United States were taken under consideration by the Department of Agriculture, in particular the intervals between white cotton and tinged cotton, between yellow tinged and yellow stained cotton, and between white and blue stained cotton. These intervals were so wide that, at the extremely high prices of the war and early post-war period, the differences in value due to minor differences in color were excessive. To correct these recognized shortcomings, work was begun looking toward a revision of the standards, which revision was finally ordered in June 1922, effective August 1, 1923. Descriptive grades for spotted, light yellow stained, and gray cotton were added at that time.

The Fulmer Act.—In 1923 the United States Cotton Standards Act (Fulmer Act) was passed and approved. The statute declared it to be—

unlawful (a) in or in connection with any transaction or shipment in commerce made after this Act shall become effective, or (b) in any publication of a price or quotation determined in or in connection with any transaction or shipment in commerce after this Act shall become effective, or (c) in any classification for the

purposes of or in connection with a transaction or shipment in commerce after this Act shall become effective, for any person to indicate for any cotton a grade or other class which is of or within the official cotton standards of the United States then in effect under this Act by a name, description, or designation or any system of names, description, or designation not used in said standards: *Provided*, That nothing herein shall prevent a transaction otherwise lawful by actual sample or on the basis of a private type which is used in good faith and not in evasion of or substitution for said standards.

Universal standards attained.—The passage of the Cotton Standards Act was followed shortly by renewed negotiations with the principal cotton associations of Europe. Conferences were held in Washington in June and July 1923, in which further minor modifications of certain grades were made, following which officials of the nine leading European associations signed agreements by which the associations adopted the standards for grade of American upland cotton as Universal standards and undertook to make them the basis of all of their contracts in which grades for American cotton were specified. Since, however, exact descriptions of quality require the use of staple standards as well as grade standards, the unwillingness of the European associations at that time to agree on standards for staple length left the situation only partially improved. Moreover, in the summer of 1924 the Liverpool Cotton Association and the Federation of Master Cotton Spinners and Manufacturers of Manchester, announced their withdrawal from the Universal Standards Agreement. The Manchester Cotton Association and the six continental associations continued to support the original agreements, which were clarified and reenforced by supplemental agreements executed in that year, in which provision was made for periodical standards conferences to be held in Washington. In 1925 the withdrawing associations applied and were readmitted to participation in the standards agreements. The supplemental agreements were amended at that time to fix the period between international conferences at 2 years.

In 1926 negotiations were opened for an agreement on staple standards similar to that for grades. Notwithstanding that a number of the continental associations were favorable, the expressed unwillingness of the other associations resulted in no further progress in that year. By the summer of 1928, however, all of the associations which were parties to the agreements on grades, had, without the formality of an agreement, taken action to recognize the official standards of the United States for length of staple, and information was conveyed from Japan that the official standards for both grade and staple had been adopted by the associations of manufacturers and of merchants in that country. With this action, the establishment of a universal system of classification of American cotton was, in effect, accomplished.

Research directed to the perfection of standards.—Although world agreement on quality standards for American cotton has, for all practical purposes, now been accomplished, it should not be understood that the task of standardization is finished. On the contrary much remains to be done to complete the technological development of the standards; to insure their constancy and stability by suitable methods of testing and calibration; and finally to simplify the scheme of standardization insofar as it may be possible to do so without diminishing the usefulness of the standards. Standardization, whether in the industrial or in the agricultural field, is recognized to

be a continuing and evolutionary process. In the case of the cotton standards it is obviously desirable that standards of character be developed as soon as possible, and work is being vigorously pursued to this end. Differences in character, which are of the greatest importance, are in many cases not discernible in the usual processes of classification but only by more intensive examination, while on the other hand, differences in character observed in classification prove in some instances to have little, if any, importance in the utilization of the cotton. In the meantime, however, the world's business in American cotton proceeds on existing standards of grade and staple in the present stage of their development. In the United States, for example, the manufacturers are estimated to buy three quarters or more of their cotton described as to grade, and half described as to staple, according to the official standards.

PROGRESS IN THE DEVELOPMENT OF CLASSING FACILITIES FOR COTTON GROWERS

Cotton classing demonstrations.—In the earlier years of the Bureau, demonstrational work was undertaken to familiarize growers with the standards and the benefits to be derived from their use in farmers' local markets. Cooperation was arranged with the extension organizations of the State agricultural colleges and with local associations of cotton growers. Specialists of the Bureau located at various points in the cotton States classified cotton for farmers before sale and made helpful suggestions for improvements in marketing and handling methods. Certain studies were made which showed that there was very little relationship between prices paid to farmers and the quality of cotton produced. The publication of the results of these studies stimulated interest among farmers and State officials in the demonstrational work described. These demonstrations were carried on for a number of years in various of the cotton States, particularly in South Carolina, North Carolina, Texas, Oklahoma, Mississippi, and Arkansas. In these demonstrations, some 236,000 bales were classified for farmers during the fiscal year 1919; 220,000 bales in 1920; 450,000 bales in 1921; 110,000 bales in 1922; and 326,000 bales in 1923. During one of these years (fiscal year 1921) the demonstrations were carried on in a total of 85 communities—19 in South Carolina, 6 in North Carolina, 2 in Mississippi, 3 in Arkansas, 12 in Oklahoma, and 32 in Texas.

The major part of this work consisted of practical demonstrations by actually classifying, according to the official standards, samples of cotton submitted by growers. Local groups furnished suitable quarters, clerical assistance in most cases, and the salary of the classer. When the cotton was classed for the farmer, a card showing the identification and the grade and staple of the bale was given to him. Such market information as was available on the current values of the respective grades and lengths of staple was also given.

The classing demonstrations were intended primarily to bring to the growers' attention the benefits of having cotton classified before its sale and to develop their interest to a point at which they would assume responsibility for a continuing service to themselves. The demonstrations were followed in a few years by the organization of

State-wide cotton cooperative associations. As those associations developed, the anticipation that they would classify large proportions of the growers' cotton and a desire on the part of certain of the cooperatives to take responsibility for the service of classification, supported in certain instances by representations of officials of the cooperating State agencies, led to discontinuance of the demonstrations in the fiscal year 1923.

While the placing of a competent classer was reported to have resulted generally in improved prices in a community, and while the program of demonstration must on the whole be regarded as a significant and productive undertaking, a number of weaknesses in the plan were developed. In some instances, inability to authenticate samples on which the classification was based made it impracticable for buyers to rely implicitly upon the classification. There were instances also in which artifices were resorted to with the obvious purpose of discrediting both the standards and the classification in the eyes of growers. Country buyers in many instances were unfamiliar with the standards or with the purposes which they were intended to serve, and were under no requirement to respect them or the classification of any cotton performed according to them. The common use of other classifications in the markets at that time persuaded many local buyers to minimize the usefulness of official standards. This situation was materially changed by the passage of the United States Cotton Standards Act (Fulmer Act) in 1923, and means for assuring the reliability of samples were afforded by the passage of the Fulmer resolution (Public Resolution No. 73, 72d Cong.) on March 4, 1933, by which provision was made for the licensing and bonding of cotton samplers for the protection of interested persons.

Classification services under the United States Cotton Standards Act.—At approximately the same time the classing demonstrations were discontinued, the United States Cotton Standards Act was passed. In addition to its mandatory provisions requiring the use of the official cotton standards in interstate and foreign commerce, it made provision for two distinct means by which the owners or holders of cotton might secure its classification, one being by direct application to the Department of Agriculture, and the other being by means of classers not employed by the Department, but examined and licensed by the Department upon a sufficient showing of competence. Certificates of classification were provided for in each case, but final certificates issued by the Department were declared to be prima facie evidence in United States courts of the true classification of the cotton represented. The statute contemplated that the Department would charge fees for classification and sustain the service out of fees so collected:

SEC. 3. That the Secretary of Agriculture may, upon presentation of satisfactory evidence of competency, issue to any person a license to grade or otherwise classify cotton and to certificate the grade or other class thereof in accordance with the official cotton standards of the United States. Any such license may be suspended or revoked by the Secretary of Agriculture whenever he is satisfied, after reasonable opportunity afforded to the licensee for a hearing, that such licensee is incompetent or has knowingly or carelessly classified cotton improperly or has violated any provision of this act or the regulations thereunder so far as the same may relate to him, or has used his license or allowed it to be used for any improper purpose. Pending investigation the Secretary of Agriculture, whenever he deems necessary, may suspend a license temporarily without a hearing.

SEC. 4. That any person who has custody of or a financial interest in any cotton may submit the same or samples thereof, drawn in accordance with the regulations of the Secretary of Agriculture, to such officer or officers of the Department of Agriculture as may be designated for the purpose pursuant to the regulations of the Secretary of Agriculture for a determination of the true classification of such cotton or samples, including the comparison thereof, if requested, with types or other samples submitted for the purpose. The final certificate of the Department of Agriculture showing such determination shall be binding on officers of the United States and shall be accepted in the courts of the United States as prima facie evidence of the true classification or comparison of such cotton or samples when involved in any transaction or shipment in commerce. The Secretary of Agriculture shall fix rules and regulations for submitting samples of cotton for classification providing that all samples shall be numbered so that no one interested in the transaction involved shall be known by any classifier engaged in the classification of such cotton samples.

SEC. 5. That the Secretary of Agriculture may cause to be collected such charges as he may find to be reasonable for licenses issued to classifiers of cotton under section 3 and for determinations made under section 4 of this act, and the amounts so collected shall be used by the Secretary of Agriculture in paying expenses of the Department of Agriculture connected therewith.

The Cotton Standards Act contained no stipulation as to the means by which licensed classers would be compensated, but allowed the licensee to look for remuneration to the persons whom he served or to the State or other agencies by which he might be employed.

Upon the passage of the Cotton Standards Act, an increase of appropriations of \$25,550 was made for its administration, jointly with the United States Cotton Futures Act. This amount was sufficient to cover the cost of the increase in standardization activities growing out of the resulting increase of public interest in the standards and the Universal Standards agreements. To defray the costs of classification services to cotton growers and others, only such funds as might be collected under section 5 of the United States Cotton Standards Act were therefore available. Although wide publicity was given to the newly granted authority of the Department to render a classification service, and although fees were fixed at as low a figure as careful estimates indicated to be possible, no immediate widespread demand for the service was discovered, a fact understandable in the light of the cooperatives' facilities available at that time to growers presumably most interested in classification. This condition, taken together with the necessity of making the service financially self-supporting, operated to limit the establishment of classification facilities to Washington and to other points where there was sufficient demand for services from persons desiring to deliver cotton on futures contracts to assure sufficient collections to sustain the costs, viz, Charleston, S.C.; Savannah, Ga.; Mobile, Ala.; New Orleans, La.; Galveston and Houston, Tex.; and New York City.

Licensed classifiers.—After a few months of operation, certain of the cotton cooperative marketing associations found the correctness of their classification of growers' cotton challenged from time to time. Consequently in 1924 they turned to the Bureau with a request to have the head classers in their employ licensed under the United States Cotton Standards Act and to have them work under the supervision of the Bureau. This arrangement was continued until 1930 when, with a general reorganization of cooperative marketing associations, the use of licensed classers was greatly extended. The number of cotton classifiers' licenses outstanding increased from 56 in 1928

to 260 in 1933. Present holders of licenses are employed at widely distributed points throughout the cotton-growing States and in a few manufacturing centers. Inasmuch as licensed classifiers employed by cooperative marketing associations classed many hundreds of thousands of bales for cotton growers which were not ultimately delivered to their associations, exact data on the extent of their activities are not obtainable, but available figures indicate that more than 3,500,000 bales were graded and stapled by them during the crop year 1932-33.

The United States Warehouse Act of August 11, 1916, as amended, also authorizes the licensing of cotton classers. At the present time 71 holders of licenses under that act serve the patrons of certain federally licensed warehouses at various points in the belt. An essential difference between the licensing authority under the Warehouse Act and that under the Cotton Standards Act is that in the case of the Warehouse Act licensees, the authority to class cotton is limited to a particular warehouse or warehouses, whereas the classers licensed under the Cotton Standards Act may class cotton anywhere in the country.

Classing demonstrations at Columbia, S.C.—In response to the request of the warehouse commissioner of the State of South Carolina, accompanied by an offer of cooperation, demonstrations of cotton classing authorized in section 10 of the United States Cotton Standards Act were undertaken at Columbia, S.C., for 3-month periods in the active parts of the cotton seasons of 1928, 1929, and 1930. During these demonstrations, farmers and others were invited to submit samples for informal classification and were furnished with memoranda showing the grade and staple length of each sample. Considerable interest was manifested in the work and numerous reports were received from producers declaring that they had received higher prices for their cotton than they would have received without knowledge of its grade and staple length. The number of bales classified in the demonstration of 1928 was 4,479; in 1929, 5,737 bales; and in 1930, 12,494 bales.

In the absence of necessary funds and inasmuch as producers felt themselves unable to bear the expense of maintaining the classification service, requests for the continuance of the work at Columbia and for similar services at other points could not be met.

In the Agricultural Appropriation Act for the fiscal year 1925, Representative Buchanan, in support of the movement to afford cotton growers facilities of classification, secured the inclusion of authority additional to that contained in the Cotton Standards Act for the classification of cotton according to the official standards in connection with the farm products inspection work.

The grade and staple estimates.—To supply authentic information as to the quality of the cotton in the carry-over each year and of the ginnings throughout each season, the Mayfield-Jones Act was approved on March 3, 1927 (44 Stat. 1372-1374). This act authorizes and directs the Secretary of Agriculture to publish annually, on dates to be announced by him, statistics or estimates concerning the grade and staple lengths of stocks of cotton, known as the "carry-over", on hand on the 1st of August each year in warehouses and other establishments in the continental United States; and following such publication each year to publish at least three estimates of the grade and staple length of cotton of the then current crop.

This work was first undertaken in limited areas during the fiscal year 1928, and with funds provided in the appropriation act for the fiscal year 1929 complete reports on the carry-over and crop were inaugurated on a national scale, the work being carried on in cooperation with agricultural experiment stations and State departments of agriculture in cotton-growing States. To provide the needed basis for reporting the quality of the crop as ginned, arrangements were made with approved ginners to supply a sample of each bale ginned, for which the ginner received compensation at an agreed figure.

For the sixth year, reports have now been made under the act of March 3, 1927, referred to above, on the grade and staple of cotton carried over at the end of the year and ginned up to specific dates during the season. In addition to the regular current reports now published weekly at each of five field offices and covering each major soil region of each cotton-growing State, data on the quality of the cotton ginned at the individual gins furnishing samples for classification have been supplied at the end of each ginning season to each cooperating ginner.

A material improvement in the staple quality of the crop as a whole has been noted in the last 4 of the 6 years in which grade and staple statistics have been reported. The extent and location of this improvement is shown graphically in charts III and IV. In the crop of 1928-29, approximately 14 percent was of undesirable lengths shorter than seven-eighths of an inch. In the following year this figure had increased to 20 percent. Each year, however, since 1929-30, has shown a progressive improvement and in the crop of 1933-34 the percentage of cotton less than seven-eighths inch in staple was only about 5 percent. The proportions of seven-eighths inch cotton in successive crops has remained about unchanged, and the decreases in the percentages of cotton shorter than seven-eighths-inch staple have been accompanied by increases in the proportions of cotton longer than seven-eighths, principally of desirable lengths in the zone of fifteen-sixteenth and 1-inch staple. That the grade and staple reports have contributed substantially to this result by bringing home the facts regarding the crop quality in many hundreds of cotton-growing communities, and by awakening interest in improvement on the part of community leaders, while at the same time strengthening the efforts of the State experiment stations and extension agencies, can hardly be questioned.

Beginning with the 1932 season, in response to ginners' and growers' requests for more detailed information, copies of the classification sheets, without numbers identifying individual bales, were supplied to the gins as soon as the samples were classed. This service, given on more than 840,000 bales, was welcomed by growers and was the occasion for many favorable comments in the press. Although the service in this form was a material aid in determining the quality of the cotton ginned in the community as represented by the cotton ginned at the particular gins, it did not give all the desired information on individual bales, and requests were made that the service be made more useful to the grower by identifying individual bales on the copy of the classification sheet that was returned to the ginner. At the beginning of the present season, therefore, a cooperative arrangement was entered into with ginners whereby the ginners agreed to furnish the samples without cost other than that of transportation, the

AVERAGE STAPLE LENGTH OF AMERICAN UPLAND COTTON GINNED IN THE UNITED STATES,
BY STATES, CROPS OF 1932, 1931, 1930, 1929, AND 1928

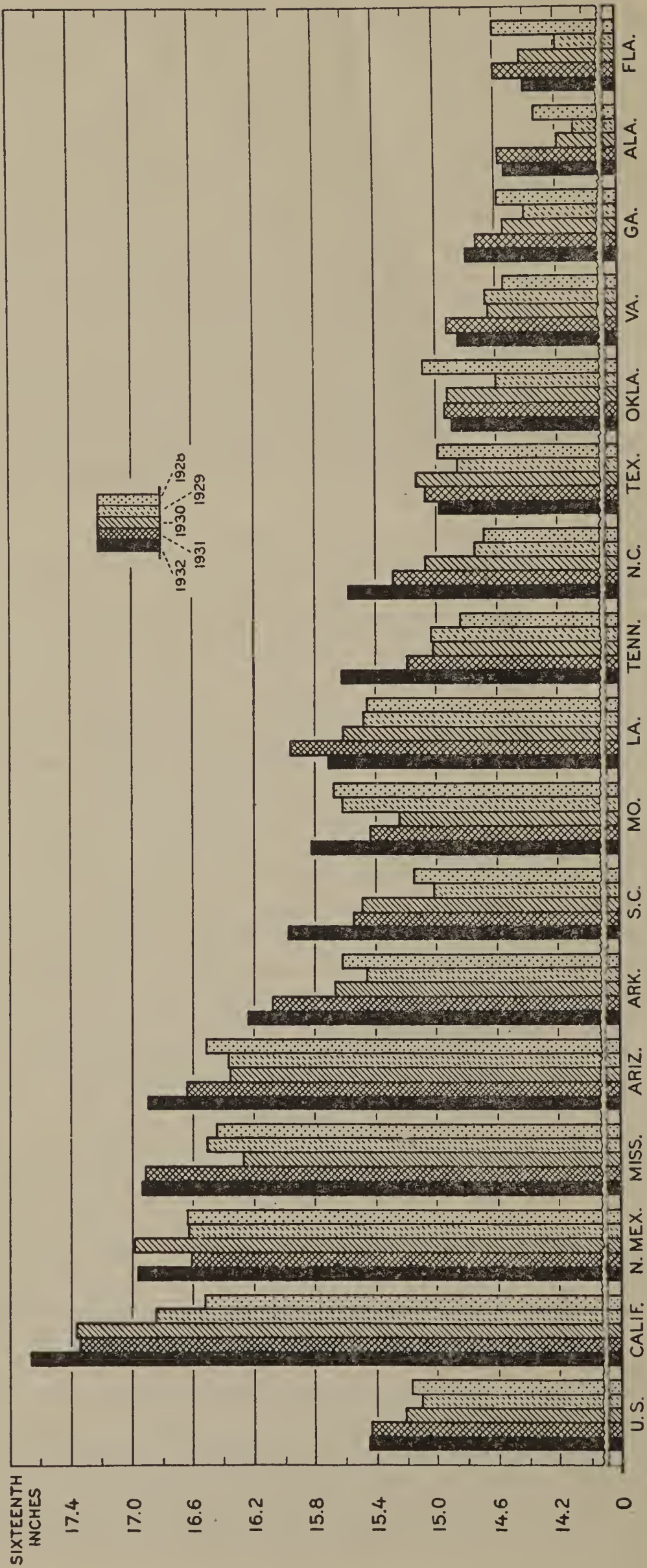


CHART III

Department in turn agreeing to identify the bales. During the 1933-34 season, about 766,000 samples were classed, and the class on each individual bale was sent to the ginners to be used by them and their patrons.

The primary intent of the legislation under which the grade and staple estimates are made and published is clearly to afford a service of information concerning available supplies of cotton of different qualities, including information on the supply of cotton of such undesirable qualities as should not in effect be calculated as a part of the available supply. The return of classification data to cooperating ginners and through such ginners to their grower patrons is, therefore, only a byproduct of this service.

In order to arrive at some definite understanding of the usefulness of the practice of returning individual bale classifications to growers

STAPLE LENGTH DISTRIBUTION OF AMERICAN UPLAND COTTON GINNED IN THE UNITED STATES, CROPS OF 1928, 1929, 1930, 1931, 1932, AND 1933

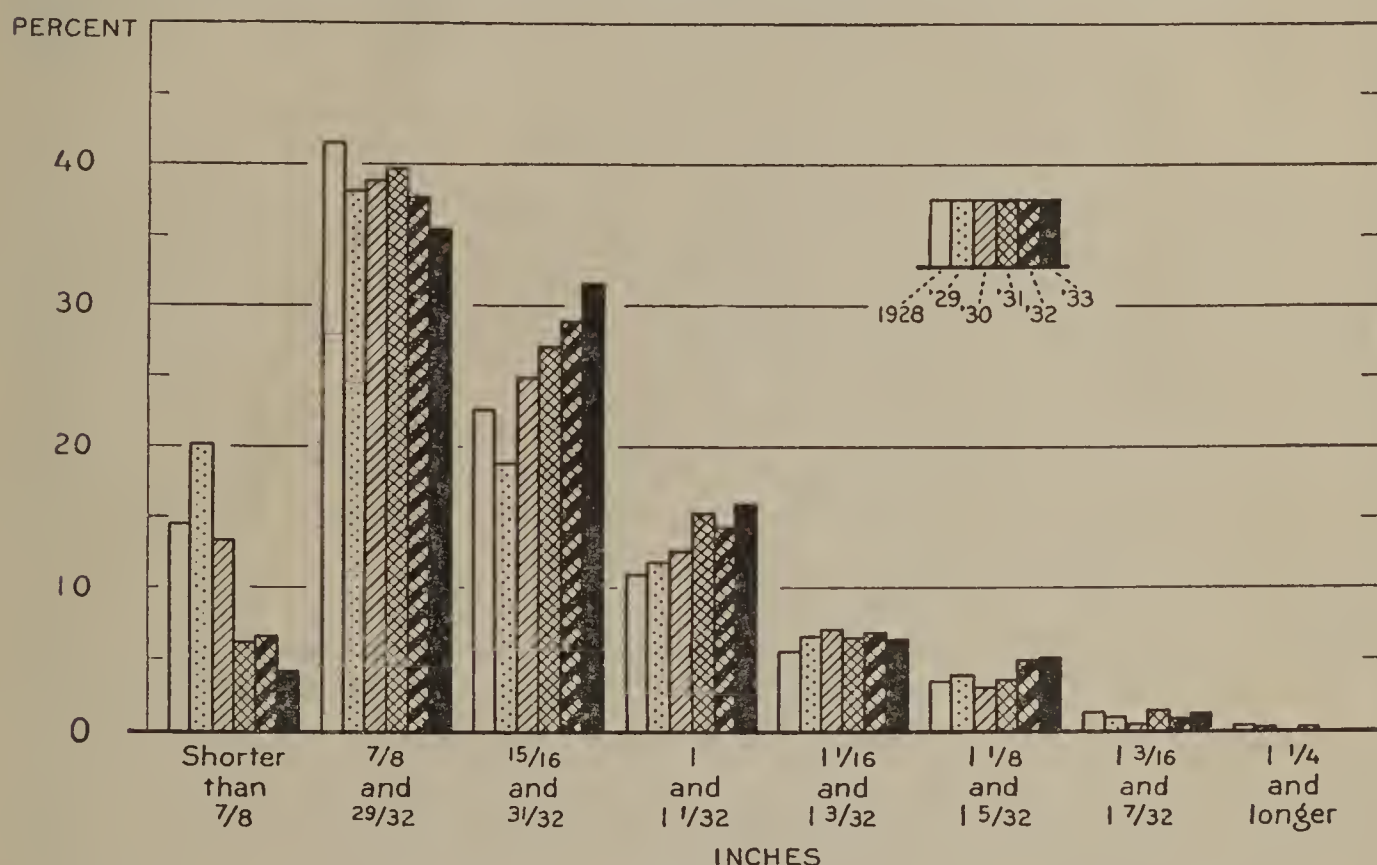


CHART IV

through the cooperating ginners, inquiries were made of 437 of the 700 cooperating ginners and of 563 of 120,000 or more grower patrons of these gins. Information received from the ginners indicates that approximately 3 growers out of every 4 from whom the ginners had bought had sold from one-half to three-quarters of their cotton before the information concerning its classification had been received at the gin. Nevertheless, more than one-third of the questioned growers replied that when they knew the grade and staple of their cotton they were able to bargain with buyers and obtain higher prices. A third of the growers also indicated that they were able to check on varieties and thus obtain some idea as to which varieties might most profitably be grown by them. Much cotton is bought from growers by ginners, and almost half of the ginners who had thus bought cotton stated that when the information was available in time they had bought on Government class or had used the Government class as a guide in determining the price to be paid. That the service as a whole has

had the effect of causing growers to appreciate more fully the importance of quality in its bearing upon value seems to have been demonstrated.

CONSIDERATIONS INVOLVED IN A BELT-WIDE CLASSING SERVICE TO COTTON GROWERS

Experience gained in the administration of the United States Cotton Standards Act and of the Grade and Staple Estimates Act leads to the belief that the organization of a belt-wide service of cotton classing for farmers presents no insurmountable problem. It would involve consideration of the following factors:

Time element.—It is clear that the time element is of primary importance from the standpoint of the grower. Faced with the necessity of raising money to meet current expenses, many growers are compelled to sell a considerable part of their cotton as soon as it is ginned. This is true particularly in the early part of the ginning season when growers generally have been without income for a long period and when many have to meet some of their heaviest expenses of the year. Promptness in classification and in the return of information to growers is therefore a prime essential. The service should be organized to meet this requirement. It is possible, of course, that with a service established, many growers might arrange to defer their sales somewhat in order to use this information. On the other hand, it must be remembered that farmers are also motivated in their selling by anticipations of advances or declines of prices. If expecting a price decline farmers could not be expected to delay their sales more than a few days, for the sake of classification information. Under such circumstances any considerable delay in supplying the information would greatly decrease its practical value.

Sampling.—The service should contemplate the sampling of growers' cotton at the gin, the classification of the sample, and return of the information to the grower with greatest possible dispatch. From the grower's standpoint the most effective service, other things being equal, would be one which would afford him information of the grade and staple of his bale before he leaves the gin. Because, however, of the number of operating gins (13,537 in 1933), the relatively small number of bales ginned by each (1933-34 average, 938 bales), and the limited availability of qualified classers, it seems clearly impracticable to consider the stationing of a competent classer at each gin (table V). Any plan for a classification service must therefore contemplate the selection of samples at the gins and their classification at convenient central points. Comparative studies which have been made of the classification of samples taken from gin press boxes and of samples subsequently cut in the usual fashion from the same bale show press-box samples to be suitable for purposes of a classification service.

TABLE V.—*Distribution of cotton-producing counties of the United States according to production, 1928–30, and number of gins operating, by States, for the crop of 1933*

State	Total	Less than 5,000 bales	5,000 to 10,000 bales	10,000 to 20,000 bales	20,000 to 30,000 bales	30,000 to 50,000 bales	Over 50,000 bales	Gin-neries operated for the crop of 1933
United States.....	826	170	173	238	130	74	41	13, 537
Alabama.....	67	5	6	32	14	10	-----	1, 273
Arizona.....	4	-----	-----	2	1	-----	1	39
Arkansas.....	69	17	14	17	12	6	3	1, 194
California.....	8	-----	-----	4	1	2	1	60
Florida.....	10	8	1	1	-----	-----	-----	48
Georgia.....	140	41	47	38	12	2	-----	1, 486
Louisiana.....	49	13	9	11	11	4	1	677
Mississippi.....	77	8	17	32	9	6	5	1, 347
Missouri.....	8	2	3	-----	1	-----	2	142
New Mexico.....	3	-----	-----	1	1	1	-----	45
North Carolina.....	61	21	10	14	10	5	1	1, 086
Oklahoma.....	59	15	8	20	7	3	6	869
South Carolina.....	44	4	8	16	9	3	4	1, 263
Tennessee.....	30	8	6	6	7	3	-----	433
Texas.....	188	23	41	43	35	29	17	3, 455
Virginia.....	9	5	3	1	-----	-----	-----	109
All others.....	-----	-----	-----	-----	-----	-----	-----	11

The procurement of samples would seem at this time to present no serious problem. In the administration of the grade-and-staple work the ginnerers have cooperated helpfully, and a continuance of their assistance is to be anticipated. Moreover, the marketing agreement now pending between the Secretary of Agriculture and the cotton ginnerers obligates each ginner to draw and forward to the Department of Agriculture, without cost other than that of transportation, a sample from each bale of cotton ginned. For all growers wishing its benefits the service might thus be made almost automatically available. It is believed that when the marketing agreement is finally negotiated its provisions will be adequate for assuring the regularity of sampling and the integrity of samples.

Classification.—Principal questions involved in the classification are those of location of offices, the plan of operation, and personnel. Two factors must be considered in the location of the points at which the work of classification would be performed. Viewed from the standpoint of affording cotton growers as much information as possible concerning the quality of their cotton and the methods by which it is determined as well as from the standpoint of easy adjustment of errors and complaints, it would be unquestionably desirable to establish a large number of classing offices, each serving a closely limited district. From the standpoint of accuracy of classification and the most effective employment of classification personnel, it would be desirable to limit the offices to a number which could be well equipped and at which classification personnel could be more effectively supervised. A practical decision in the matter would probably require some compromise of these two ideas. It seems reasonable, nevertheless, to consider that classing offices should be so located that samples of cotton ginned one day might be transported from the gin to the office overnight, classified on the second day, and a memorandum of classification returned to the grower over the second night.

On this basis, it is estimated that 60 regional classing offices might be required. To afford prompt classification of the entire crop, probably 200 classers would be needed, each for a period of 6 months, and 300 each for a period of 3 months, together with the necessary additional administrative and clerical personnel and sample-room help.

Costs.—On an assumed crop of 10,000,000 bales it should be possible to provide a belt-wide classification service at a cost of not in excess of 12 cents a bale. With the crop increased to 15,000,000 bales, it is thought that the cost might be reduced to 10 cents a bale the first year. Increased efficiency after the first year should in either case make some further reduction possible in subsequent years. Moreover, if an average of 2 cents could be obtained for each sample, the sale of samples from a 15,000,000-bale crop after classing would yield \$300,000 and thus reduce the actual net cost of classing to about 8 cents per bale.

In a consideration of organization and of costs, it should likewise be considered that the existing personnel of the grade and staple estimates project might be effectively utilized and that a considerable part of the funds now appropriated to that project for the support of its information service might, with proper authorization, be applied to the expenses of the classification project. Such a reorganization of the grade and staple reporting work might be effected without impairment of its statistical and information functions, inasmuch as summary reports in even greater detail and accuracy than is now possible might at a moderate expense be made of classification work performed.

Authority.—The United States Cotton Standards Act and the item “Market inspection of farm products” in the annual appropriation act contain general authority for the classification of cotton, but if a general service is to be provided to growers without cost to them specific legislation might be desirable.

Market news.—In the contemplation of a classification service for cotton growers, it should also be considered that maximum advantage to growers can be realized only if, at the same time they receive information concerning the classification of their individual bales, they are also in possession of current information concerning basis prices and premiums and discounts for the respective grades and staples. Such information is not now generally available. Accompanying any development of a belt-wide classing service, provision should be made for supplying adequate price information as free as possible of the technicalities and obscurities of marketing terminology, and so presented that its meaning and application to local conditions may be fairly understood. This, it is believed, might be done by providing for the posting of current local and general price information at each gin or in post offices throughout the Cotton Belt.



